

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management?
Local human population.	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Medium	Low	Permitted waste types are single stream non hazardous and have a low potential to produce bioaerosols.	There are no residential receptors within 950m of the Site. The Site is not located within an AQMA. Waste treatment activities are undertaken in a building. Fugitive emissions are controlled within the building by means of dry extraction and collection equipment. Incoming planings will be stored in a building or in fully covered bays. Refer to the Dust Emissions Management Plan (PDE Consulting Ltd, August 2023) for further details.	Low
Local human population.	As above.	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Low	Low	Low	As above. Local residents often sensitive to dust.	As above. Receptors absent.	Low
Local human population, livestock and wildlife.	Litter.	Nuisance, loss of amenity and harm to animal health.	Air transport then deposition.	Low	Low	Low	Local residents often sensitive to litter, however permitted waste types have negligible litter potential.	As above. Appropriate measures include clearing litter arising from the activities from affected areas outside the Site.	Very low
Local human population.	Waste, litter and mud on local roads.	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving Site.	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	All vehicles importing and exporting materials to or from the Site will be sheeted to prevent materials escaping the vehicle body. Vehicles will not travel on unmade ground.	Low
Local human population.	Odour.	Nuisance, loss of amenity.	Air transport then inhalation.	Medium	Medium	Low	Local residents often sensitive to odour, however permitted waste types have a low odour potential.	Waste storage and treatment activities are undertaken under cover. Residential receptors are absent.	Low
Local human population.	Noise and vibration.	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	Medium	Local residents often sensitive to noise and vibration but residential receptors are absence in this case.	A Noise Impact Assessment (WBM Acoustic Consultants, February 2023) was produced to support the planning application. The NIA sets out the calculated noise levels arising from the operation of the proposed facility, for use in a BS 4142:2014+A1:2019 assessment. It concluded that there will be no adverse impact arising from the proposals at the nearest residential, commercial or ecological receptors.	Low

Local human population.	Scavenging animals and scavenging birds.	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land.	Low	Low	Low	Permitted wastes unlikely to attract scavenging animals and birds.	Emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution.	Very low
Local human population	Pests (e.g. flies).	Harm to human health, nuisance, loss of amenity.	Air transport and over land.	Low	Medium	Low	Permitted waste types unlikely to attract pests.	As above.	Very low
Local human population and local environment.	Flooding of site.	If waste is washed off Site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters.	Low	Low	Low	Permitted waste types are non hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Waste storage and treatment activities are undertaken in a building. The Site benefits from flood defences. It is stated in the Flood Risk Assessment (BCL Consultant Hydrogeologists Limited, February 2023) produced for the planning application that the proposed development should not lead to any increase in flood risk elsewhere in the catchment area.	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation.	All on-site hazards: wastes; machinery and vehicles.	Bodily injury.	Direct physical contact.	Medium	Low	Low	Permitted waste types are non hazardous therefore only a low magnitude risk is estimated.	It is proposed that the existing perimeter fence is replaced with a new 3 m high steel palisade fence to prevent unauthorised access into the Site. The purpose built access road consented under planning permission reference 22/00653/FUL has a 1.8 m high fence and controlled gate access to prevent public access to the Site. It is proposed that a lighting system will be installed within the Site to increase security and safety.	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	Low	Permitted waste types do not include sludges or liquids and are non hazardous, so only a low magnitude risk is estimated.	An emergency plan will be located onsite which details the procedure in the event of a fire. Fire fighting equipment will also be in place to deal with any fires that may occur on Site.	Low
Local human population and local environment.	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Low	Low	Low	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low

All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	Low	Permitted waste types do not include sludges or liquids so only a low magnitude risk is estimated.	All liquids shall be provided with secondary containment including non - wastes such as fuels.	Very low
All surface waters close to and downstream of site.	As above.	Chronic effects: deterioration of water quality.	As above. Indirect run-off via the soil layer.	Low	Low	Low	Waste types are non-hazardous so harm is likely to be temporary and reversible.	As above. Pollution protection measures will be installed.	Very low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above.	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	Low	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	There are no surface water abstractions within 500m of the Site.	Very low
Groundwater.	As above.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes unlikely to contaminate groundwater.	The site will be surfaced and is directly underlain by made ground and then alluvium. The alluvium is classed as a secondary undifferentiated aquifer. The Site is not located with a groundwater source protection zone.	Very low
Local human population.	Contaminated waters used for recreational purposes.	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion.	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	Receptors absent.	Very low

Protected sites - European sites and SSSI's, including fish migratory routes in SSSIs	Any.	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any.	Medium	Medium	Medium	<p>Waste operations may cause harm to and deterioration of nature conservation sites.</p> <p>West Thurrock Lagoon & Marshes SSSI is located to the south and east of the Site. This 66.5 ha site is one of the most important areas for wintering waders and wildfowl on the Inner Thames Estuary. It comprises extensive intertidal mudflats and a large and secure high tide roost which combine to attract waders in nationally important numbers, with significant populations of other bird species. The River Thams provides a protected fish migratory route . Swanscombe Marine Conservation Zone is located approximately 500 m to the south east of the Site.</p>	<p>Waste storage and treatment activities will be undertaken in a building, with appropriate mitigation therefore there is no mechanism whereby site activities could impact the identified protected sites. Appropriate surfacing and drainage is installed in external areas.</p> <p>There is no mechanism whereby uncontrolled surface water run-off could enter surface water receptors. A full drainage strategy has been prepared for the site (Meridial Civil Engineering Consultancy, February 2023). The drainage scheme has been designed in accordance with SuDS. The SuDS system will ensure that any surface water is managed on site and water discharged off site meets with the quality standards set by an environmental permit (discharge consent), this being the regulatory mechanism to protect the receiving waters. There will be sweeping of external areas. Dust suppression measures will be in place. The proposed waste types will not attract birds or vermin therefore predation is not an issue. No access is required to the protected sites therefore there will be no disturbance.</p> <p>An Ecological Impact Assessment (EIA) (Wilkinson Associates, February 2023) was carried out to support the planning application.</p> <p>The EIA concluded that there will be no significant adverse effects on West Thurrock Lagoon & Marshes SSSI or on any other designated sites.</p>	Low
---	------	--	------	--------	--------	--------	---	--	-----